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During the heat of World War II, Johnson, Lockheed's famed aircraft designer, forged a team of engineers behind tightly closed doors in makeshift facilities in Burbank, Calif., and designed and developed the P-80 Shooting Star, the Air Force's first truly operational jet fighter, in a mere 143 days. Since then, this organization continues within Lockheed Martin and has given shape to many "firsts" such as the F-104 Starfighter, the first Mach 2 aircraft; the U-2 reconnaissance aircraft, which is still the highest flying single engine airplane; and the SR-71 "Blackbird" reconnaissance aircraft, which was the first to fly at speeds in excess of Mach 3. The SR-71, which has been retired, is still the highest flying and fastest jet aircraft ever developed. The Skunk Works is also responsible for development of the F-117 Nighthawk, the world's first operational stealth fighter, and led development of the YF-22 Advanced Tactical Fighter, the forerunner of today's F/A-22 Raptor, the first aircraft to combine stealth, supercruise, super maneuverability, and highly integrated avionics. More recently, the Skunk Works led the development and flight testing of the Lockheed Martin, Northrop Grumman, BAE Systems X-35 Joint Strike Fighter (JSF) prototypes. Included in this effort was the successful flight testing of the innovative lift fan system on the X-35B demonstrator. The successful testing of this revolutionary vertical landing capability was a key factor in the Lockheed Martin team's win in the JSF competition. With production of the F-35 aircraft scheduled to last for four decades, the JSF program will likely be the largest defense contract in history. How did the Skunk Works name come into being? The actual facts have been veiled by time. But there is no doubt that it was derived from the "Skonk Works" in Al Capp's popular 1940s-era "Li'l Abner" comic strip that appeared in newspapers nationwide. It is believed that Irv Culver, a talented designer who worked on Johnson's original 1943 P-80 development team was responsible for the name. Johnson, who died in 1990, noted in his autobiography, "The legend goes that one of our engineers – I guess it was Culver – was asked "What is Kelly doing in there?" He's stirring up some kind of brew,' was the answer. This brought to mind Li'l Abner and the hairy Indian in that strip who regularly stirred up a big brew, throwing in skunks, old shoes and other material to make his 'Kickapoo joy juice.'" Culver's version differs. He recalled that World War II secrecy dictated that Lockheed engineers could not even identify their office when answering the phone. The isolation reminded him of the much-shunned Kickapoo joy juice works in the comic strip. So one day when a group of Pentagon military officers placed a conference call, he answered, "Skonk Works, inside man, Culver." After an awkward pause one of the officers asked, "What?" Culver repeated, "Skonk Works," and the name stuck. Nestled in the fringes of California's Mojave Desert, Advanced Development Programs (a.k.a. The Skunk Works) today continues its notable tradition by developing transformational strategies and classified products in a "quick", "quiet" and "quality" manner to support its varied customers. It continues to "brew" up new innovations that are and will serve our nation's defense for decades to come. The Skunk Works unique unmanned products, i.e. Desert Hawk and EPAS, recently saw action in both Afghanistan and Iraq. Frank Cappuccio is the current Vice President and General Manager of the "Skunk Works". Frank started his Lockheed Martin career in the Skunk Works and is committed to keeping this national asset in the forefront of aeronautical technology and products. His vision, like Kelly Johnson's is simple: Superior products through innovation. Lockheed Martin Aeronautics Co., headquartered in Fort Worth, Texas, is a leader in the design, development, systems integration, production and support of advanced military aircraft and related technologies. Its customers include the military services of the United States and allied countries throughout the world. Products include the F-16, F/A-22, F-35 JSF, F-117, T-50, C-5, C-130, C-130J, P-3, S-3 and U-2. Headquartered in Bethesda, Md., Lockheed Martin employs about 125,000 people worldwide and is principally engaged in the research, design, development, manufacture and integration of advanced technology systems, products and services. The corporation reported 2002 sales of \$26.6 billion. For additional information, visit our websites: SOURCE: Lockheed Martin Aeronautics Company At Lockheed Martin Skunk Works®, your mission defines our purpose. Our team of dedicated engineers and scientists assume it can be done. With a visionary focus on the future, we partner with our customers to anticipate tomorrow's capability gaps and technology needs to solve the most critical national security challenges today. With our enduring legacy, unique culture and way of operating, Skunks move quickly to develop disruptive solutions in core capability areas needed for our nation's future success. Discover how our team is defining the future by clicking the capability icons below. As the threat evolves to a highly contested environment, a survivable and persistent ISR system is needed to provide lifesaving intelligence for the warfighter. We're working on solutions that combine stealth technology, speed and improved sensors to penetrate and operate in hostile environments. Learn More We are evolving technologies that connect, share and learn to create a holistic network across the battlespace. From the depths of sea to the far reaches of space, our engineers' extensive expertise in advanced technology solutions will power the joint all-domain battlespace. Learn More We are proud to support the DoD and warfighters in developing rapid and cost effective hypersonic solutions. Our robust experience in high-speed flight is the foundation on which we are developing cutting edge technologies to enable hypersonic solutions. Learn More Our team embraces an integrated digital approach to design that reduces cost and accelerates development. From artificial intelligence and networked factories to data analytics and augmented reality, the digital thread helps our team connect, collaborate and innovate with agility. Learn More 85% of the work we do is classified and executed in secrecy to protect our national security and ensure our armed forces maintain an edge over any threat. We embrace new approaches and techniques to enhance efficiency while adhering to our tried-and-true way of operating. Digital Transformation methodologies and advanced digitally enabled technologies allows us to deliver holistic integrated solutions faster and more effectively, ensuring that we continue to meet and exceed the evolving needs of our customers. Mission-driven transformation is what we do. In today's contested battlespace, our operators need to get closer to the fight. We're advancing next generation air mobility through investment in connected and survivable tanking solutions that provide the reliability and versatility operators have come to expect. At Lockheed Martin Skunk Works, nothing is impossible. Our scientists and engineers tackle some of the world's hardest problems every day to pioneer radical approaches to groundbreaking advanced technology concepts. Skunk Works developed iconic aircraft like the U-2, SR-71, and F-117A through innovative engineering. The development of the XP-80 jet fighter marked the birth of Skunk Works and set a high standard for rapid production. Lockheed Martin's Skunk Works continues to drive aviation innovation, creating stealthy aircraft, X-planes, and advanced avionics. Lockheed Martin has a famous product development shop in Palmdale, California, known as Skunk Works. From Skunk Works has come at least the XP-80 early jet fighter, U-2 and SR-71 spy planes, the F-117A Nighthawk, the F-22 Raptor, the F-35 Lightning II, and multiple stealthy uncrewed aircraft. A Skunk Works initially to develop America's first jet fighter Reviewing Lockheed Martin's official history, the first official Lockheed
product developed by Spunk Works was the World War II XP-80 in 1943 in response to the Luftwaffe's Me-262. The Me-262 was the first mass-produced jet fighter, as per the below guide. Related A brief history of the Me 262's development, with views by top British and German pilots. The XP-80 would be Kelly Johnson's first jet, developed in 143 days – less than the 150 days granted. Although the XP-80 did not see combat in World War II, P-80 variants did see combat in the Korean War from 1950-1953, doing both air superiority and ground attack roles. Photo: Grossinger | Shutterstock.com Armament: Six .50-cal. machine guns and eight 5-in. rockets or 2,000 lbs. of bombs Engine: Allison J33 of 5,400 lbs. thrust Maximum speed: 580 mph Cruising speed: 437 mph Range: 1,090 miles Ceiling: 46,800 ft. Span: 38 ft. 10 1/2 in. Length: 34 ft. 6 in. Height: 11 ft. 4 in. Weight: 16,856 lbs. maximum The Skunk Works name was born at this time from an Al Capp's newspaper comic strip, which was about a secret place in the woods brewing beverages from skunks, old shoes, and other wild ingredients. When engineer Irv Culver answered the phone and said he worked for Skunk Works, the name stuck – especially as the P-80's development had to be a US national security secret at the time. Graphic: Lockheed Martin Furthermore, as pictured above, Kelly Johnson developed 14 rules for operating Skunk Rules. Lockheed Martin says these rules still apply today, such as rule 12: "There must be mutual trust between the military project organization and the contractor, as well as very close cooperation and liaison on a day-to-day basis. This cuts down misunderstanding and correspondence to an absolute minimum." The Skunk Works is most famous for developing spyplanes like the U-2 "Dragon Lady" high-altitude spy plane in 1954 that could fly above Soviet air defenses until Soviet air defenses caught up. The U-2's ability to operate at 70,000 ft (21,336 km) is still valuable today, even 70 years later, and many upgrades later. Photo: viper-zero | Shutterstock Power plant: One General Electric F118-101 engine Thrust: 17,000 pounds Wingspan: 105 feet (32 meters) Length: 63 feet (19.2 meters) Height: 16 feet (4.8 meters) Weight: 16,000 pounds Maximum takeoff weight: 40,000 pounds (18,000 kilograms) Fuel capacity: 2,950 gallons Payload: 5,000 pounds Speed: 410 mph Range: More than 7,000 miles (6,090 nautical miles) Ceiling: Above 70,000 feet (21,212+ meters) One should note that the many variants of U-2 can carry many sensors, such as wide-angle cameras, telephoto cameras, electromagnetic sensors to scoop up signals, and even air sensors to monitor air pollution. But its intended replacement would not be so versatile or last so long. The Central Intelligence Agency wanted a low-observable spy plane that could fly at Mach 3. The aircraft was developed originally as A-12, even though A stands for Attack. Eventually, it would become the SR-71 Blackbird, designed to fly at Mach 3 and refract radar returns to increase its ability to conduct reconnaissance worldwide. Photo: USAF According to SR-71.org, Skunk Works got the CIA order on January 26th, 1960, and by April 30th, 1962, they had a formal first flight. By May 2nd, the A-12 went supersonic; on July 20th, it exceeded Mach 3 – 3 times the speed of sound. In November, the design speed and altitude were met. Engines: Two Pratt & Whitney J58s of 32,500 lbs. thrust each with afterburner Crew: Two Maximum speed: Mach 3+ (three times the speed of sound) or over 2,000 mph Range: More than 2,900 statute miles Ceiling: Over 85,000 ft. Span: 55 ft. 7 in. Length: 107 ft. 5 in. Height: 18 ft. 6 in. Weight: 140,000 lbs. loaded Photo: Jose Gil | Shutterstock But the U-2 shutdown of May 1st, 1960, would result in standing orders from multiple United States Presidents to not overfly the Soviet Union to prevent another tragedy and risk of escalation between the nuclear powers. As a result, the A-12 became the SR-71. Related The aircraft shattered records and climbed to new heights. The SR-71 would come with peripheral cameras to peek over the borders to eliminate the need for dangerous and unwelcome overflights. Additionally, the SR-71 could pack radars to map through clouds and, therefore, use another part of the electromagnetic spectrum to create visuals. Related The Lockheed SR-71 Blackbird is retired and being relpaced by the SR-72 UAV. Additionally, it is the world's highest and fastest production aircraft – not just would the CIA and US Air Force the aircraft is heading too close to terrain away from an airport and that the pilot is not responding to warnings. 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